

**Work Order ID 70023**

Page 1

Wednesday, May 25, 2011 1:01:11 PM

Item ID: D3954-3

Accept



Setup Start



Revision ID:

Stop



Item Name: GWT Knob

Start Date: 5/25/2011 Start Qty: 16.00



Cust Item ID:

Required Date: 6/10/2011 Req'd Qty: 16.00



Customer:

Reference:

Approvals:

Process Plan: CLDate: 11/05/25

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

Draw Nbr

Revision Nbr

D3954

B

100

0.00



Waterjet

Memo

0.00

FLOW CNC Waterjet

1-Cut as per Dwg D3854

Dwg Rev: BProg Rev: B

2-Deburr if necessary

B11-5-271010 375X3.5<sup>4</sup>

110

0.00



QC

QC2- Inspect parts off machine FAI/FAIB

Memo

0.00

Quality Control

B11-5-07EP 11/05/31

(16)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 70023**

Wednesday, May 25, 2011 1:01:11 PM



Page 2

Item ID: D3954-3

Accept



Setup Start



Revision ID:

Stop



Item Name: GWT Knob

Start Date: 5/25/2011 Start Qty: 16.00



Cust Item ID:

Required Date: 6/10/2011 Req'd Qty: 16.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

120

QC8- Inspect parts - second check

0.00



QC

Memo

0.00

Quality Control

8 5/25/11

(416)

130

Memo  
1-OPEN TO TAP DRILL SIZE  
2-TAP AS PER DWG D3954

0.00



Mill Conv

Conventional Milling Machine

0.00

11/06/01

16

140

QC5- Inspect part completeness to step on W/O

0.00



QC

Memo

0.00

Quality Control

8 5/25/11

(416)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

# Work Order ID 70023

Wednesday, May 25, 2011 1:01:11 PM



Page 3

Item ID: D3954-3

Accept



Setup Start



Revision ID:

Stop



Item Name: GWT Knob

Start Date: 5/25/2011 Start Qty: 16.00



Cust Item ID:

Required Date: 6/10/2011 Req'd Qty: 16.00

Customer:

Reference:

Run Start



Approvals:

Process Plan:

Date:

Tooling:

Date:

Stop



QC:

Date:

SPC (Y/N):

Date:

Sequence ID/  
Work Center ID

Operation  
Description

Set Up/  
Run Hours

Tool ID

Tool #

Plan  
Code

Accept  
Qty

Reject  
Qty

Reject  
Number

Insp.  
Stamp

150



SprayPaint

Spray Painting

powdercoat.

Memo

1- MASK THREADS PRIOR TO PAINTING AS PER DWG

2- SPRAY PAINT YELLOW AS PER DWG

A/R BATCH:

N/A

0.00

0.00

Start Time: 10:45

Over Temp: 400°F

Finish Time: 11:15

16x 11/06/02

160



QC

Quality Control

QC14-Inspect Spray Paint

Memo

QC3

0.00

0.00

16 11-6-02

170



Packaging

Packaging

Identify as per dwg & Stock Location: 97

Memo

0.00

0.00

11/6/2 S/P/160

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

**Work Order ID 70023**

Wednesday, May 25, 2011 1:01:11 PM



Page 4

Item ID: D3954-3

Accept



Setup Start



Revision ID:

Stop



Item Name: GWT Knob

Start Date: 5/25/2011 Start Qty: 16.00



Cust Item ID:

Required Date: 6/10/2011 Req'd Qty: 16.00



Customer:

Reference:

Run Start



Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_

Stop



QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_

Sequence ID/  
Work Center IDOperation  
DescriptionSet Up/  
Run Hours

Tool ID

Tool #

Plan  
CodeAccept  
QtyReject  
QtyReject  
NumberInsp.  
Stamp

180

QC21- Final Inspection - Work Order Release

0.00



QC

Memo

0.00

Quality Control

11/6/78

MF  
11-06-03

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_  
 Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries



# Picklist Print

Wednesday, May 25, 2011 1:01:09 PM

Page 1

Work Order ID: 70023



Parent Item: D3954-3



Parent Item Name: GWT Knob

Start Date: 5/25/2011

Required Date: 6/10/2011

Start Qty: 16.00

Required Qty: 16.00

## Comments:

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M1010B0.375X03.500		Purchased	No			100	f	3.0800	0.02778	0.467874			



1811-5-27

1010-1025 Steel Bar .375 x 3.500

### Location

### Loc Qty

### Loc Code

MAT036

3.08

110740

3.08

110740

16

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

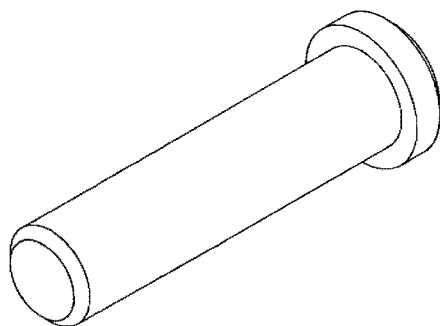
Resolution: \_\_\_\_\_ Disposition: \_\_\_\_\_ QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

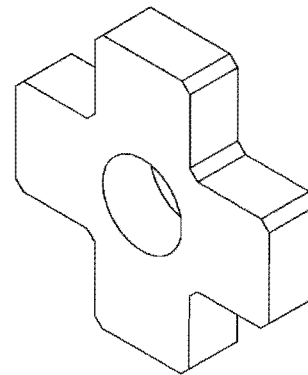
**NOTE:** Date & initial all entries





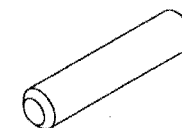


**D3954-1 GWT PIN**

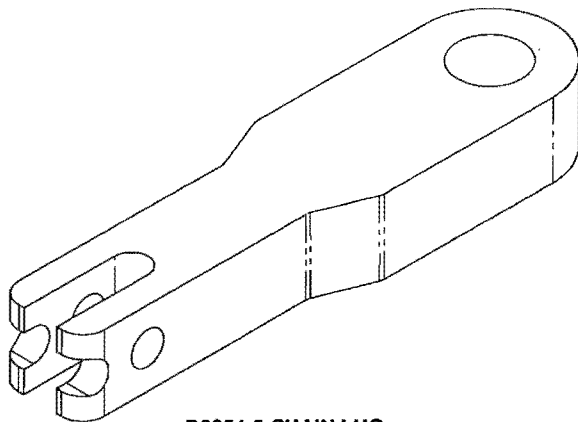


**D3954-3 GWT KNOB**

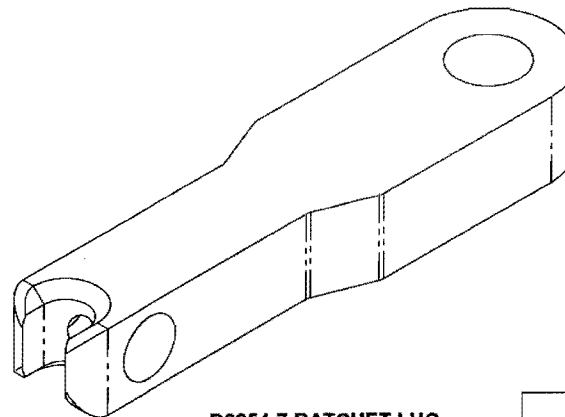
CL11/05/25



**D3954-9 GWT CHAIN PIN**



**D3954-5 CHAIN LUG**

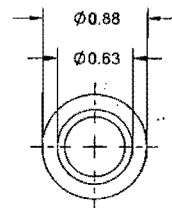


**D3954-7 RATCHET LUG**

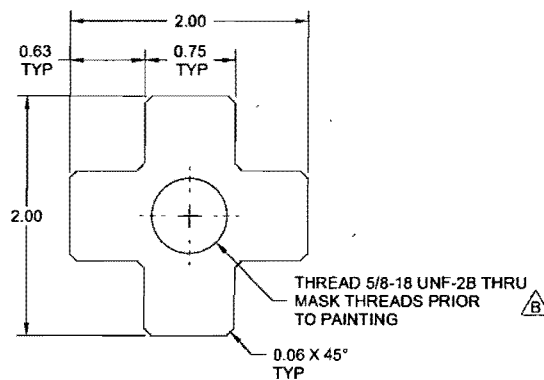
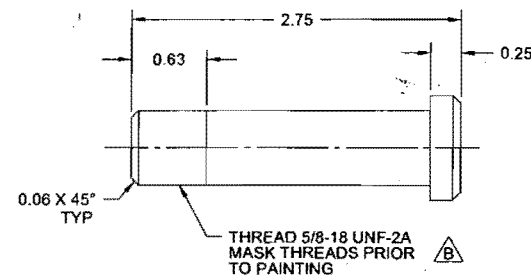
**RELEASED**  
2009-10-19  
MP

B	MATERIAL UPDATE FOR ALL COMPONENTS WAS STAINLESS STEEL IS CARBON STEEL FOR ALL COMPONENTS. FINISH FOR ALL COMPONENTS WAS RED POWDER COAT IS YELLOW SPRAY PAINT.	AJS	09.10.15
A	NEW ISSUE	AJS	09.05.26
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS	DRAWING NO.	REV. B
CHECKED		<b>D3954</b>	SHEET 1 OF 3
MFG. APPR.		TITLE	SCALE
APPROVED		<b>MISC MACHINED PARTS GWT KIT</b>	NTS
DE APPR.	N/A	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMERCIALITY TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DATE	09.10.15		

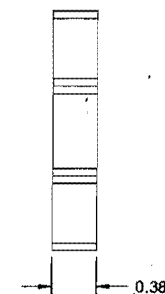




**D3954-1 GWT PIN**



**D3954-3 GWT KNOB**



**NOTES:**

1) MATERIAL -1: AISI 1010-1025 MILD STEEL ROUND BAR  
PER DART SPEC M1018-R

-3: AISI 1010-1025 MILD STEEL SHEET  
PER DART SPEC M51010-S

OR: AISI 1010-1025 MILD STEEL BAR  
PER DART SPEC M1010-B

**ALTERNATE MATERIAL:**

-1: AISI 303/304 STAINLESS STEEL ROUND BAR  
REF DART SPEC M303/304R

-3: AISI 303/304 STAINLESS STEEL SHEET  
REF DART SPEC M303/304S

OR: AISI 303/304 STAINLESS STEEL BAR  
REF DART SPEC M303/304B

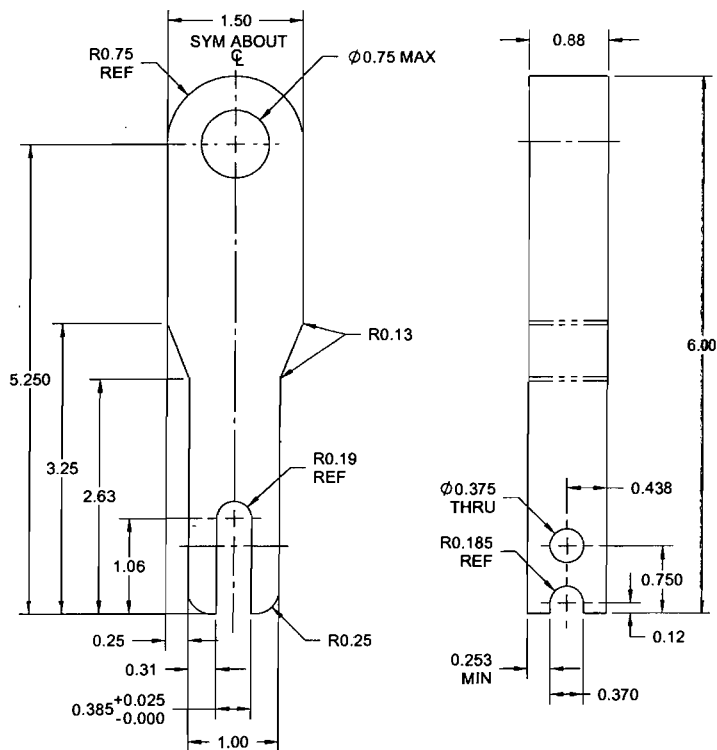
- 2) FINISH: SPRAY PAINT YELLOW WITH BERTRAND CG1031B PER DART QSI 005 4.2 B  
 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
 4) UNITS: INCHES UNLESS OTHERWISE NOTED  
 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3954-X" USING FINE POINT PERMANENT INK MARKER  
 7) WEIGHT -1: 0.26 lbs  
 -3: 0.23 lbs

**RELEASED**  
2009-10-19

DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		D3954	SHEET 2 OF 3
APPROVED		TITLE	SCALE
DE APPR.	N/A	MISC MACHINED PARTS GWT KIT	NTS
DATE	09.10.15	<small>COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	







**D3954-5 CHAIN LUG**

**NOTES:**

1) MATERIAL: -5/-7: AISI 1010-1025 MILD STEEL BAR  
PER DART SPEC M1010-B

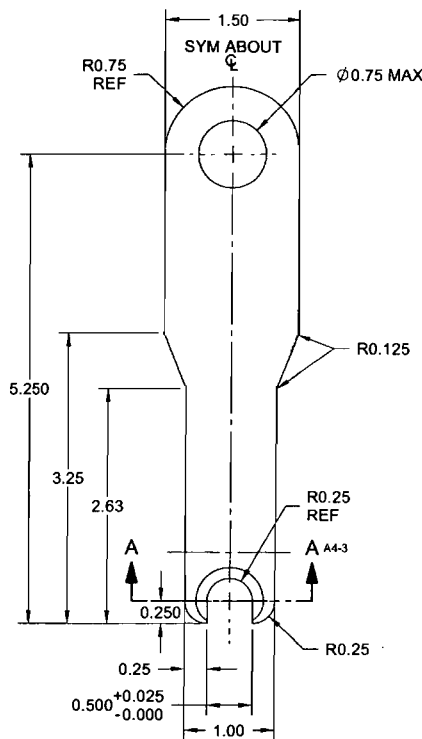
9: AISI 1010-1025 MILD STEEL ROUND BAR  
PER DART SPEC M1018-R

**ALTERNATE MATERIAL:**

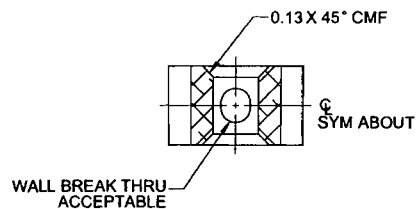
-5/-7: AISI 303/304 STAINLESS STEEL BAR  
REF DART SPEC M303/304B

-9: AISI 303/304 STAINLESS STEEL ROUND BAR  
REF DART SPEC M303/304R

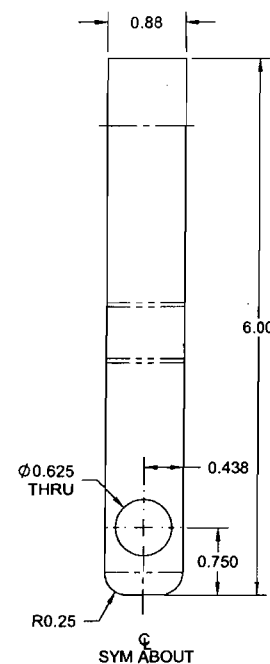
- 2) FINISH -7 ONLY: SPRAY PAINT YELLOW WITH BERTRAND CG1031B PER DART QSI 005 42  
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3954-X" USING FINE POINT PERMANENT INK MARKER  
7) WEIGHT -5/-7: 1.56 lbs EACH  
-9: 0.05 lbs



**D3954-7 RATCHET LUG**



**SECTION A-A** C3-3



**D3954-9 GWT CHAIN PIN**

**RELEASED**  
2009-10-19

DESIGN	AJS/DSTOW	<b>DART AEROSPACE LTD</b>	
DRAWN	AJS	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. B
MFG. APPR.		<b>D3954</b>	SHEET 3 OF 3
APPROVED		TITLE	SCALE
DE APPR.	N/A	<b>MISC MACHINED PARTS GWT KIT</b>	NTS
DATE	09.10.15	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

